

ENERGY, E.

Proportion of gas and electric-power production and its distribution for the power economy of Hungary. p.29

ENERGIA ES MŰANYAGTUDÁS. (Energy and Power of Hungary) Budapest, Hungary  
Vol. 10, no.1, Jan. 1910

Monthly List of East European Accessions (1910) 10., Vol. 1, no. 1, July 1910  
Incl.

CARD: 1/2

H - 56

COUNTRY :  
CATEGORY :

H

AB3. JOUR. : REXhim., no. 83 1950, No. 83112

AUTHOR :

TITLE :

ORIG. PUB. :

ABSTRACT : absorptive capacity. As for example, when wa-  
ter content is increased from 0.2 to 2.0,  
absorption of  $C_2H_6$  drops off (at 20° and 760 mm)  
by 6%, at a water content of 5% it drops off  
by 21%, at 6.8% by 31%. The authors consider  
that, with economics permitting, the water  
content of I (in the main scrubber) should not  
exceed 0.2 - 0.3%.-- S. Rosenfeld.

CARD: 2/2

COUNTRY: : Hungary  
 CATEGORY :  
 BS. JOUR. : RZhKhim., No. 22 1959 No.

79839

AUTHOR :  
 INCL :  
 TITLE :

ORIG. PUB. :

ABSTRACT : atoms grouped in aromatic structures. The investigation of the cyclic components of hard bitumens has shown that the hydrocarbons present in the bitumen from Lishpe and Lobau crudes possess less aromatic character than the hydrocarbons in the hard bitumen obtained from residues from Nod'lend'el [transliterated] crude; however, the ring condensation index, which characterizes the number of carbon atoms present in the side chains, is lower for the latter hydrocarbons.

3. Margolina

CARD: 2/2

COUNTRY	:	Hungary	H-25
CATEGORY	:		
ABS. JOUR.	:	RZKhim., No. 22 1959, No.	79835
AUTHOR	:	Maidegger, E. and Hesp, V.	
INST.	:	Hungarian Academy of Sciences	
TITLE	:	Investigation of the Composition of Bitumens and Asphalts	
ORIG. PUB.	:	Acta Chim Acad Sci Hung, 15, No 4, 325-337 (1958)	
ABSTRACT	:	<p>The results from an investigation and calculations made by the authors on and for hard and soft bitumens as well as for coal tar products by the Kirevelen method are given; the Kirevelen method was developed for the analysis of coals and is based on the determination of the sp gr and the elementary composition. It is shown that a direct relationship exists between the molecular weight and the structure of the bitumens: the higher the molecular weight, the greater the number of C</p>	

CABO: 1/2

241

SOURCE : Hungary

H-25

ANAL. JOURNAL : PERKINS, 40, 21, 1981, 20.

76351

AUTHOR :  
TITLE :

ABSTRACT :

with catalyst concentrations (oxides of Cu, Zn, Mn) of over 1 wt %. The minimum contact time (minimum yield of paraffins) is 20 min. Experiments in a continuous laboratory reactor, using a mixture of  $H_2$  and  $N_2$  (75%  $H_2$ ) at a pressure of 315 atm and with 1.5-4 wt % catalyst, have shown that the minimum permissible temperature increases with increasing space velocity of the reaction mass.

G. Yudkovich

CARD: 2/2

275

COUNTRY : Hungary  
 CATEGORY :

A-25

ABS. JOUR. : *Akchim.*, no. 21, 1952, 10.

76551

AUTHOR : Indigera, F., Kacalyi, J., and Salai, A.  
 TITLE : Alcohols

SUBJECT : The Production of Fatty Alcohols by High-Pressure Hydrogenation

ORIG. PUB. : *Magyar Kem Lapja*, 10, No 5-6, 17-180 (1958)

ABSTRACT : The results from an investigation of the reduction of palm oil, sunflower oil, and coconut oil to alcohols with  $H_2$  at high pressures and temperatures are presented. The reaction was carried out in a laboratory reactor of 2-liter capacity. It has been found that in the temperature range 300-350° the optimum temperature appears 300°. Varying the pressure in the range 200-260 atm has no effect on the alcohol yield. Satisfactory yields of alcohols were achieved

CARD: 1/2

HAIDEGGER, E.

Newer data on the distillation of a coal-oil mixture.

p. 210 (Magyar Kamiknsek Lapja. Vol. 11, no. 7/8 July/Aug. 1917, Budapest, Hungary)

Monthly Index of East European Accessions (EAI) 10. Vol. 7, no. 2,  
February 1958

Hungary/Chemical Technology. Chemical Products and Their Application -- Treatment of solid mineral fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5448

Abstract: of the coke was reduced to 0.53%. Experiments in which the coal was first moistened with a solution of  $\text{FeCl}_3$  and  $\text{CaCl}_2$  and then subjected to coking, have shown that increase in the amount of Fe and Ca compounds present in the coal increases the sulfur content of the coke. The conclusion is reached that by means of an acid treatment of the coal it is possible to lower the sulfur content of the coke produced therefrom.

HAIDEGGER, ERNO

Hungary/Chemical Technology. Chemical Products and Their Application -- Treatment of solid mineral fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5448

Author: Haidegger, Erno

Institution: None

Title: The Possibility of Desulfurization of Hungarian Brown Coal

Original

Publication: Magyar kem. folyoirat, 1956, 62, No 5, 145-148

Abstract: To study the possibility of lowering the S content of Hungarian high-sulfur brown coal and the production of sulfur free coke, an experimental investigation was made of the effect of mineral components on the formation of S-compounds during carbonization of the coal, for which purpose two samples of the coal were treated with 20% solution of HCl and coked at different temperatures. It is shown that removal of the compounds of Fe and Ca decreases the sulfur content of the coke. Thus, for example, if the coke of a given variety of coal contained 3.2% S, after this coal had been treated with acid the sulfur content

Card 1/2

HANDEGGER, E.

[illegible]

HAIDEGGER, W.

Electrostatic preparation of coal. p.534. BANYASHATI LAPOK.  
Budapest. Vol. 11, no. 9, Sept. 1956.

SOURCE: East European Accessions List (EEAL), Library of Congress  
Vol. 5, No. 12, December 1956

HEDEGGER, E.

Information on synthetic coke. p.90. (Kohaszati Lapok. Budapest. Vol. 11, no. 4, Apr. 1946, Ontode, Vol. 7, no. 4.)

CC: Monthly List of Post European Acquisitions (1941) Vol. 4, no. 7, pp. 100-101.

HAIDEgger, E.

Significance of iron coke in ferrous metallurgy. p. 93.  
KOHASZATI LAPOK. (Magyar Bányászati és Kohászati Egyesület) Budapest.  
Vol 11, no. 3, Mar 1956.

SOURCE: EEAL, Vol 5, no. 7, July 1956.

HATDEGER, E.

The problems of power economy in our century. p. 329. Vol. 9, No. 9 Sept. 1956.  
MAGY ENERGIAGAZDASAG. Budapest, Hungary.

SOURCE: East European List, (EEAL) Library of Congress Vol. 6, No. 1  
January 1956.

Haidegger, E.

V 23. Experimental desulphurization of domestic bituminous  
 CH coals for the production of furnace coke -- E. Haidegger.  
 Zs. (Magyar Kémiai Folyóirat -- Vol. 61, 1935, No. 1,  
 pp. 19--23, 3 figs.)

Experimental work was undertaken in order to reduce the sulphur content of domestic bituminous coals (mined in the Pécs area). Desulphurization of the bituminous coals and cokes used as starting materials was carried out at temperatures ranging from 800 to 900° C and alternatively in a stream of ordinary coal gas (dehydrated and steam-saturated gas were tried) and ammonia. The efficiency of the desulphurization process was investigated in relation to temperature, particle size and gas volume. The relative amounts of different sulphur derivatives contained in the coals (s.g. sulphides, sulphates, pyrites and organic sulphur compounds) were determined during the desulphurization process and it was found that organic sulphur was most easily eliminated in a reducing atmosphere. The most efficient desulphurization was observed when ammonia was used. The highest values of sulphur eliminated by the process amounted to 38.3% for coals and 33.6% for cokes.

~~KHAYDEGGER, KHADA~~  
E.

HUNGARY / Chemical Technology. Processing of Solid Fuels

H-22

Abstr Jour : RZhKhim., No 12, 1958, No 40014

Author : Khaydegger, Khada, S

Inst : Not given

Title : Improvement of the Yield and the Quality of the Products  
in the Coke-Gas Industry.

Orig Pub : Magyar Kemik. lapja, 1955, 10, No 8, 244-249

Abstract : Eighteen library references.

Card 1/1

SZUCS, Miklos, dr.; HAIDEGGER, Erno; SZEBENYI, Imre

Experiment in coking asphaltic crude oil residues with high sulphur content. Koh lap 9 no. 10: 462-466 0 '54.

1. Budapesti Műszaki Egyetem Kémiai Technológiai Tanszék.

HALDEGGER, E.

Bib. Abs. BI  
March 1953  
General Process  
Metallurgy

2

Optimum profiles for wire drawing. E. Haldegger (Aluminum, Budapest, 1952, 4, No. 4, 15-17; Metallurg, 1952, 40, 48). — The optimum design of dies for various special purposes is shown by means of diagrams, and relevant data for the wire-drawing of Fe, steel, Al, Cu, brass, and bronze are tabulated. R. B. CLARKE.

CB

HAIDEGGER, ERNO.

40

Electrolytic production of nickel. Erno Haidegger.  
*Bányász. Kohász. Lapok* 83, 571-8 (1950).—Crude granulated Ni contg. Ni 98, Cu 2, Fe 1%, and some Si, C, S, and Mn was melted in graphite crucibles, rolled into sheets, and refined by electrolysis with various electrolytes. The current efficiency and the quality of the deposited Ni were poor when electrolyzing a cool liquid at 125 v. and 70 amp. This is explained by a strong chem. polarization of Ni at room temp., which leads to reactions of higher potentials, such as development of H and O. Best results were obtained at 60°. The material transport in all electrolytes examd. was effected by  $\text{NiSO}_4$ . The addn. of  $\text{H}_2\text{BO}_3$  was advantageous, since it stabilized the pH. The optimum

pH should be established empirically. When processing a catholyte at a pH that is too low the Ni deposit contained NiO in the form of black dots, and the anode had bubbles on the surface. The structure of the deposited Ni layer was finer with a sulfate than with a chloride electrolyte. When cast anodes were used in place of rolled anodes, soln. took place more readily. Metallic contaminations of the anode except Co did not deposit on the cathode with certain precautions. The presence of  $\text{NiCl}_2$  or KCl prevented the passivation of the anode. After processing the spent electrolyte in the anodic area was recovered in 2 phases. The liquid was aerated or treated with  $\text{Ni(OH)}_2$  to remove Fe as hydroxide. Co was then pptd. by addn. of  $\text{Ni(OH)}_2$  and  $\text{NaClO}$ , and the  $\text{Co(OH)}_2$  ppt. was removed by filtration. Further processing was required to sep. precious metals, chiefly Pt. István Pindly

21  
 MET

LOSONCZY, Gyorgy, dr.; PETRAS, Gyozo, dr.; HAIDECKER, Julia, dr.

Diagnostic and epidemiological data on Klebsiella infections.  
Orv. hetil 105 no. 10, 1964 10 Mr'64.

1. Fovarosí László Korhaz.

HAIDE, Rudolf

The railroad shunting engine of the No. 100 type. Elelm ipar  
14 no.6:187-189 Je '60.

1. Termenyertekesitesi es Raktározasi Vallalat.

HAIDA, L.

"Mechanization of the Pressing Process in the Production of V Belts." p. 159,  
(MECHANISACE, Vol. 2, No. 4, Apr. 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EERL), LC, Vol. 4  
No. 5, May 1955, Uncl.

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HAICOV, K. H.

PA 162T79

RUMANIA/Metallurgy - Steel  
Dephosphorization Mar/Apr 50

"Dephosphorization of Steel in Electric Furnaces  
With Acid Linings," K. H. Haicov

"Metallurgia" No 2, pp 58-60

Describes experiments in eliminating phosphorus from steel during normal processing in electric furnaces. Mixture of slaked lime and coarse ore used as dephosphorizing material. Dephosphorized slag obtained and metal then decarbonized in furnace and vigorously cooled. Shows that formation of dephosphorized slag is possible in electric

162T79

RUMANIA/Metallurgy - Steel (Contd) Mar/Apr 50  
furnace. Stability of acid furnace is 2-2.5 times greater than that of basic furnace.

162T79

MAYER, Karel; HAICL, Zdenek

Congenital spinal abnormalities and their clinical significance.  
Cesk. pediat. 17 no.5/6:514-517 Je '62.

1. Katedra detske chirurgie a ortopedie fakulty detskeho lekarstvi  
University Karlovy v Praze, vedouci prof. MUDr. O. Hnevkovsky.

(SPINE abnorm)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800036-6

HAHNER, Lajos

Workshop experiences with the "Peralta" rolls. Magy textil 13 no.2:  
77-79 F '61.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800036-6

HAHNER, I.

"Movement for Saving Raw Materials in Viegogne Spinning Mills."  
Magyar Textiltechnika [Hungarian Textiles] Vol. 3, No. 12, pp. 376-378,  
December 1950.

L 41809-66 SWP(j) RM

ACC NR: AP6031693

(N)

SOURCE CODE: PO/0099/66/040/003/0411/0420

AUTHOR: Hahn, Witold E.; Sokolowska, Alicja

ORG: Department of Organic Chemistry, University, Lodz (Katedra Chemii Organicznej Uniwersytetu)

TITLE: Synthesis of aminoalcohols. VIII. Derivatives of beta-mercapto-alpha-arylhydrazono-propane

SOURCE: Roczniki chemii-annales societatis chimicae polonorum, v. 40, no. 3, 1966, 411-420

TOPIC TAGS: organic synthetic process, sulfone, sulphinic acid, mercaptan, condensation reaction, formaldehyde

ABSTRACT:  $\beta$ -Arylhydrazone- $\alpha$ -ketosulphides or sulphones have been obtained in the reaction of mercaptanes<sup>7</sup> or sulphinic acids with Mannich bases synthesized from the  $\omega$ -arylhydrazone derivatives of glyoxal. Direct three-component condensation of formaldehyde, CH and SH acidic compounds yielded the same compounds. The sulphides were oxidized to sulfoxides and sulphones. Orig. art. has: 6 figures and 2 tables. [Based on authors' Eng. abst.] [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 20Apr65 / ORIG REF: 003 / OTH REF: 016

Card 1/1 of

09/9 0593

L 07003-67 EWP(j) RM

ACC NR: AP7001015

(N)

SOURCE CODE: PO/0099/66/040/001/0149/0152

AUTHOR: Hahn, Witold E.; Epszajn, Jan; Olejniczak, Bogdan; and Stasiak, Stanislaw

ORG: Department of Organic Chemistry University (Katedra Chemii Organicznej  
Uniwersytetu), Lodz.

TITLE: Synthesis and reactions of 2,6-dialkylpyridine analogues

SOURCE: Roczniki chemii-Annales societatis chimicae polonorum, v. 40, no. 1,  
1966, 149-152

TOPIC TAGS: heterocyclic base compound, pyridine, chemical synthesis, chemical  
reaction

ABSTRACT: Continuation of work on the synthesis and properties of N-heterocyclic  
compounds condensed in the ortho position with cycloparaffins is reported. Of par-  
ticular interest were compounds having an alicyclic ring condensed in the 2 and 3  
positions, and an alkyl in position 6 in pyridine. Systems having two alicyclic  
rings condensed in positions 2, 3 and 5,6 with pyridine were also investigated.  
Orig. art. has: 2 tables. [JPRS: 35,397]

SUB CODE: 07 / SUBM DATE: 09Sep65 / ORIG REF: 001 / SOV REF: 001 / OTH REF: 004

HAHN, Witold E.; MADEJA-KOTKOWSKA, Zofia

Studies on products of reduction of some hydroxycarbonyl derivatives of 1,2-benzo- $\Delta^1$ -cycloheptene. *Rocz chemii* 37 no. 7/8:915-917 '63.

1. Department of Organic Chemistry, University, Lodz.

HAHN, Witold, E.; EPSZTAJN, Jan

Cycloparaffins condensed with heterocyclic rings. Pts. 1-2.  
Rocz chemii 37 no.4:395-412 '63.

1. Katedra Chemii Organicznej, Uniwersytet, Lodz.

HAHN, Witold E.; EPSZTAJN, Jan

New method for the synthesis of 5,6,7,8-tetrahydroquinoline.  
Rocz chemii 37 no.1:109-112 '63.

1. Department of Organic Chemistry, University, Lodz.

HAHN, Witold E.; BARTHNIK, Romuald; EPSZTALN, Jan

Utilization of the Mannich reaction for the synthesis of heterocyclic systems. Pt.4. Roczniki chemii 36 no.11:1645-1654 '62.

1. Katedra Chemii Organicznej, Uniwersytet, Lodz.

HAHN, Witold W.; EPSZTAJN, Jan

Experiments in hydroxymethylation and hydroxylation of  
(2,3-pyrido)-cycloparaffin. Roczniki chemii 36 no.4:777-778  
1962.

1. Katedra Chemii Organicznej, Uniwersytet, Lodz.

The use of the Mannich reaction...

S/081/62/000/023/041/120  
B166/B101

$\text{CH}_3\text{OH}$  and 2 ml concentrated  $\text{HCl}$  are then added to the residue giving IVt hydrochloride,  $\text{C}_{17}\text{H}_{19}\text{N}_3\text{O}\cdot\text{HCl}$ , yield 77%, m.p.  $158-160^\circ\text{C}$  (decomposition; from  $\text{CH}_3\text{OH}$ ). In the same way IVj hydrochloride,  $\text{C}_{22}\text{H}_{21}\text{N}_3\text{O}\cdot\text{HCl}$ , is produced from V in 6 hrs, yield 80%, m.p.  $189.5-190.5^\circ\text{C}$  (decomposition; from acetone-alcohol 10:1). A mixture of 0.01 moles V and 0.005 moles  $\text{C}_6\text{H}_5\text{CH}_2\text{NH}_2$  in 50 ml toluene is boiled for 10 hrs in a  $\text{N}_2$  atmosphere, the solvent is removed by vacuum distillation, producing VII,  $\text{C}_{37}\text{H}_{33}\text{N}_3\text{O}_2$ , yield 39%, m.p.  $171-172^\circ\text{C}$  (from absolute alcohol). A mixture of 0.002 moles IVt hydrochloride, 0.3 g  $\text{Na}_2\text{CO}_3$ , 0.3 ml 37%  $\text{CH}_2\text{O}$  and 10 ml  $\text{CH}_3\text{OH}$  is heated for 1 hr, cooled, then 3 ml water are added, the product is III ( $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{C}_6\text{H}_5\text{CH}_2$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ), m.p.  $74-75^\circ\text{C}$  (from 70%  $\text{CH}_3\text{OH}$ ). A mixture of 0.001 moles IVj, 0.2 g  $\text{Na}_2\text{CO}_3$  and 0.2 ml 37%  $\text{CH}_2\text{O}$  in 5 ml  $\text{CH}_3\text{OH}$  is heated for 1/2 hr, producing IIIj. [Abstracter's note: Complete translation.]

Card 5/5

S/081/62/000/023/041/120  
B166/B101

The use of the Mannich reaction...

50%  $\text{CH}_3\text{OH}$ ); g, 1.2, 20,  $\text{C}_{17}\text{H}_{17}\text{N}_3\text{O}$ , 60, 119-121 (from  $\text{CH}_3\text{OH}$ ); h, 1, 20,  $\text{C}_{17}\text{H}_{17}\text{N}_3\text{O}$ , 80, 101-103 (from 50%  $\text{CH}_3\text{OH}$ ); k, 1, 40,  $\text{C}_{22}\text{H}_{25}\text{N}_3\text{O}$ , 70, 101.5-102.5 (from  $\text{CH}_3\text{OH}$ ); l, 1, 30,  $\text{C}_{22}\text{H}_{19}\text{N}_3\text{O}$ , 65, 126-128 (from  $\text{CH}_3\text{OH}$ ); m, 1, 160,  $\text{C}_{18}\text{H}_{17}\text{N}_3\text{O}_3$ , 60, 231-233 (from alcohol); n, 1.5, 120,  $\text{C}_{18}\text{H}_{17}\text{N}_3\text{O}_3$ , 65, 239-241 (from 80%  $\text{CH}_3\text{COOH}$ ); o, 1.5, 50,  $\text{C}_{21}\text{H}_{19}\text{N}_3\text{O}$ , 70, 160-161 (from acetone); p, 1.5, 25,  $\text{C}_{13}\text{H}_{17}\text{N}_3\text{O}_2$ , 85, 92.5-93.5 (from cyclohexane); q, 3, 100,  $\text{C}_{17}\text{H}_{16}\text{N}_4\text{O}_3$ , 48, 149-151 (from  $\text{CH}_3\text{OH}$ ); r, 5, 100,  $\text{C}_{12}\text{H}_{12}\text{N}_4\text{O}_3$ , 35, 150-152 (from  $\text{CH}_3\text{OH}$ ); s, 5, 100,  $\text{C}_{14}\text{H}_{18}\text{N}_3\text{O}_3$ , 45, 121-122 (from  $\text{CH}_3\text{OH}$ ). A mixture of 0.02 moles Ia, 0.025 moles 37%  $\text{CH}_2\text{O}$  and 0.022 moles  $\text{C}_6\text{H}_5\text{NHC}_2\text{H}_5$  in 50 ml alcohol is boiled for 5 hrs, then cooled and the product is VIII,  $\text{C}_{18}\text{H}_{21}\text{N}_3\text{O}$ , m.p. 205-206.5°C (from  $\text{CH}_3\text{OH}$ ). A mixture of 0.02 moles VI and 0.04 moles  $\text{C}_6\text{H}_5\text{CH}_2\text{NH}_2$  in 80 ml absolute toluene is boiled for 8 hrs in a  $\text{N}_2$  atmosphere, the solvent is removed by vacuum distillation, and 30 ml

Card 4/5

S/OB1/62/000/023/041/120  
B166/B101

The use of the Mannich reaction...

2-phenylhydrazone of 1-ethylphenylaminobutadi-2,3-one (VIII) alone. To a mixture of 0.02 moles I ( $R = Ar = C_6H_5$ ) and 0.044 moles 37%  $CH_2O$  in 40 ml alcohol are added 0.022 moles  $C_6H_5CH_2NH_2$ , this is heated for 1 hr and after 24 hrs IIIj,  $C_{23}H_{21}N_3O$  is precipitated, yield 75%, m.p. 95-96°C (from  $CH_3OH$ ); the hydrochloride has the m.p. 190-192°C (from alcohol). III are obtained in the same way (the following gives the substance, the reaction time in hrs, the quantity of alcohol in ml, the gross formula, the yield as a % and the melting point in °C): a, 1, 20,  $C_{12}H_{16}N_3O$ , 82, 80-90 [iodomethylate,  $C_{13}H_{18}N_3OI$ , m.p. 208-210°C (from  $CH_3OH$ ); iodoethylate,  $C_{14}H_{20}N_3OI$ , m.p. 188-189°C (from acetone)]; b, 1, 20,  $C_{13}H_{17}N_3O$ , 78, 52-53 (from 70%  $CH_3OH$ ) [iodomethylate,  $C_{14}H_{20}N_3OI$ , m.p. 186-188°C (from acetone)]; c, 1, 20,  $C_{14}H_{19}N_3O$ , 75, 79-80.5 (from 80%  $CH_3OH$ ); d, 1, 20,  $C_{14}H_{19}N_3O$ , 90, 64-65 (from 60%  $CH_3OH$ ); e (the hydrochloride), 1, 25,  $C_{15}H_{21}N_3O \cdot HCl$ , 70, 150-152 (from benzene); f, 1, 25,  $C_{14}H_{17}N_3O$ , 65, 43-44 (from

Card 3/5

The use of the Mannich reaction...

S/081/62/000/023/041/120  
B166/B101

$R' = \text{cyclohexyl}$ ,  $R'' = \text{C}_6\text{H}_5\text{CO}$ ; (l)  $R = R' = \text{C}_6\text{H}_5$ ,  $R'' = \text{C}_6\text{H}_5\text{CO}$ ;  
(m)  $R = \text{C}_6\text{H}_4\text{COOH-m}$ ,  $R' = \text{CH}_3$ ,  $R'' = \text{C}_6\text{H}_5\text{CO}$ ; (n)  $R = \text{C}_6\text{H}_4\text{COOH-p}$ ,  $R' = \text{CH}_3$ ,  
 $R'' = \text{C}_6\text{H}_5\text{CO}$ ; (o)  $R = \text{C}_6\text{H}_5$ ,  $R' = \beta\text{-naphthyl}$ ,  $R'' = \text{CH}_3\text{CO}$ ; (p)  $R = \text{C}_6\text{H}_5$ ,  
 $R' = \text{CH}_2\text{CH}_2\text{OH}$ ,  $R'' = \text{CH}_3\text{CO}$ ; (q)  $R = \text{C}_6\text{H}_4\text{NO}_2\text{-p}$ ,  $R' = \text{CH}_3$ ,  $R'' = \text{C}_6\text{H}_5\text{CO}$ ;  
(r)  $R = \text{C}_6\text{H}_4\text{NO}_2\text{-p}$ ,  $R' = \text{CH}_3$ ,  $R'' = \text{CH}_3\text{CO}$ ; (s)  $R = \text{C}_6\text{H}_4\text{NO}_2\text{-p}$ ,  $R' = \text{iso-C}_3\text{H}_7$ ,  
 $R'' = \text{CH}_3\text{CO}$ ).  $\text{RCOC(=NNHAr)CH}_2\text{NHR'}$  (IVa-s) is formed intermediately in the  
course of condensation, which is proved by the independent synthesis of  
IVj and IV (R =  $\text{CH}_3$ ,  $R' = \text{C}_6\text{H}_5\text{CH}_2$ , Ar =  $\text{C}_6\text{H}_5$ ) (IVt) by reacting  
 $\text{C}_6\text{H}_5\text{COC(=NNHC}_6\text{H}_5)\text{CH}_2\text{N(CH}_3)_2$  (V) and  $\text{CH}_3\text{COC(=NNHC}_6\text{H}_5)\text{CH}_2\text{N(CH}_3)_2$  (VI) with  
 $\text{C}_6\text{H}_5\text{CH}_2\text{NH}_2$  and converting IVj,t into IIIj,t by heating it with  $\text{CH}_2\text{O}$ .  
Reacting V with insufficient quantity of  $\text{C}_6\text{H}_5\text{CH}_2\text{NH}_2$  gives  
 $\text{CH}_3\text{COC(=NNHC}_6\text{H}_5)\text{CH}_2\text{N(CH}_2\text{C}_6\text{H}_5)\text{CH}_2\text{C(=NNHC}_6\text{H}_5)\text{COCH}_3$  (VII). The action of  
 $\text{C}_6\text{H}_5\text{NHC}_2\text{H}_5$  and  $\text{CH}_2\text{O}$  on I (R =  $\text{CH}_3$ , Ar =  $\text{C}_6\text{H}_5$ ) (Ia) leads to the formation of

Card 2/5

S/081/62/000/023/041/120  
B166/B101

AUTHOR: Hahn, Witold E.

TITLE: The use of the Mannich reaction for synthesizing hetero-cyclic systems. I. 2-aryl-6-acyl-2,3,4,5-tetrahydro-1,2,4-triazine derivatives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 299-300, abstract 23Zh242 (Roczn. chem., v. 36, no. 2, 1962, 227-234 [Pol.; summaries in Russ., Eng., and Ger.] )

TEXT: Condensation of  $\text{RCOCH=NNHAr}$  (I) with  $\text{R'NH}_2$  (II) and  $\text{CH}_2\text{O}$  gives 2-R-4-R'-6-R''-2,3,4,5-tetrahydro-1,2,4-triazines (IIIa-s, where  
(a)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{CH}_3$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ; (b)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{C}_2\text{H}_5$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ;  
(c)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{C}_3\text{H}_7$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ; (d)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{iso-C}_3\text{H}_7$ ,  
 $\text{R}'' = \text{CH}_3\text{CO}$ ; (e)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{C}_4\text{H}_9$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ; (f)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{allyl}$ ,  
 $\text{R}'' = \text{CH}_3\text{CO}$ ; (g)  $\text{R} = \text{R}' = \text{C}_6\text{H}_5$ ,  $\text{R}'' = \text{CH}_3\text{CO}$ ; (h)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{CH}_3$ ,  
 $\text{R}'' = \text{C}_6\text{H}_5\text{CO}$ ; (j)  $\text{R} = \text{C}_6\text{H}_5$ ,  $\text{R}' = \text{C}_6\text{H}_5\text{CH}_2$ ,  $\text{R}'' = \text{C}_6\text{H}_5\text{CO}$ ; (k)  $\text{R} = \text{C}_6\text{H}_5$ ,  
Card 1/5

HAHN, W.E.; TOMCZYK, D.

The reactions of 2,3- and 3,4-cycloalkenequinoline derivatives.  
Pt.1. Acta chim 8:61-67 '62.

1. Department of Organic Chemistry, University, Lodz. Presented by  
W.E. Hahn.

MAHN, W.E.; WOJCIECHOWSKI, L.

Reactions of the dimercaptomaleic acid derivatives. Pt.1. Acta  
chim 8:55-59 '62.

1. Department of Organic Chemistry, University, Lodz, and Institute  
of Organic Industry, Section Zgierz. Presented by W.E. Hahn.

HAHN, W.E.; WEGLEWSKI, J.

Synthesis of aminoalcohols. Pt.6. Acta chim 8:45-54 '62.

1. Department of Organic Chemistry, University, Lodz. Presented  
by W. E. Hahn.

HAHN, W.E.

Cyanoethylation of hydrazine derivatives. Pt.1. Acta chim 8:37-43  
'62.

1. Department of Organic Chemistry, University, Lodz. Presented by  
W. Hahn.

CHRSZASZCZEWSKA, A.; HAHN, W.E.; KACZAN, J.

Research on the diacylglycerophosphoric acids. Pt.3. Acta chim  
8:29-35 '62.

1. Department of Organic Chemistry, University, Lodz. Presented by  
A. Chrzaszczewska.

HAHN, Witold E.; EPSZTAJN, Jan

Utilization of the Mannich reaction for the synthesis of heterocyc-  
clinical systems. II. Some derivatives of (-2,3,4,5-tetrahydro-1,2,4-  
triazine-4) - acetic acids. Roczniki chemii 35 no.4:907-916 '61.

1. Katedra Chemii Organicznej, Uniwersytet, Lodz.

1 7 4  
 / Reaction of amino acids with formaldehyde and aryl-  
 hydrazones. Witold R. Hahn (Univ., Lodz, Poland).  
*Roczniki Chem.* 34, 339-30 (1960) (German summary).—  
 Similarly to primary amines, glycine, L-alanine, and DL-  
 leucine react with formaldehyde and  $\alpha$ -monourylhydrazones,  
 $\beta$ -derivs. of glyoxal,  $RCH:NNHAr$ , or *p*-nitrobenzaldehyde  
 phenylhydrazone to form colored cryst. derivs. of  $HO_2C$ .

CHR'N.CH<sub>2</sub>.CR:N.NPh.CH<sub>2</sub> (R', R, and m.p. given):  
 H, Ac, 155-7°; Me, Ac, 150-2°; Bu, Ac, 100-1°; H, Bz,  
 146-8°; Me, Bz, 165-7°; H, *p*-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 138-40°.

A. Kreglewski

2-LTJ (MB) (MAY)

Distr: 4E2c(1)/4E3d

V Synthesis of 6-(p-nitrophenyl)-1,2,4-triazine derivatives.  
 Witold E. Hahn and Halina Zawadzka (Univ., Łódź,  
 Poland). *Roczniki Chem.* 34, 327-8 (1960) (German sum-  
 mary).—The following 4-derivs. of 6-(p-nitrophenyl)-2,3,4,5-tetrahydro-1,2,4-triazine were prepd. from p-nitro-  
 phenacylamine phenylhydrazone and formaldehyde accord-  
 ing to Busch, *et al.* (*CA* 19, 477; 22, 3840): Me, m. 119-  
 20°; iso-Pr, m. 122.5-24°; CH<sub>2</sub>:CHCH<sub>3</sub>, m. 102-3.5°;  
 Bu, m. 110-11.5°; cyclohexyl, m. 172-3°; PhCH<sub>2</sub>, m.  
 104-6°; Ph, m. 120-3°.

A. Kreglewski

1-BN(BW)  
 2-LAT(NB)(MAY)

2

HAHN, Witold E.; MADEJA, Zofia; PIECHOCKI, Tadeusz

Studies on fluorene derivatives. Fluorene-4-aldehyde (4-formyl  
fluorene). Rocz chemii 33 no.6:1505-1506 '59. (EEAI 9:9)

1. Zaklad Chemii Organicznej Uniwersytetu, Lodz.  
(Fluorene) (Formyl group) (Aldehydes)

HAHN, Witold E.

Cyanoethylation of aryl hydrazones. Roczniki chemii 33 no.6:1501-1503 '59.  
(EEAI 9:9)

1. Zaklad Chemii Organicznej Uniwersytetu, Lodz.  
(Cyanoethylation) (Hydrazones) (Aryl groups)

HAHN, Witold E.

Investigation of the addition of formaldehyde and mercaptans to the  
 $\omega$ -monoarylhydrazone derivatives of glyoxal. Roczniki chemii 33 no.4/5:  
1249-1250 '59. (EEAI 9:9)

(Formaldehyde)	(Thiols)	(Aryl groups)
(Hydrazones)	(Glyoxal)	

HAHN, Witold E.

Reactions between *w*-monoarylhydrazone derivatives of glyoxal, formaldehyde, and primary amines. Roczniki chemii 33 no.4/5:1245-1247 '59. (EEAI 9:9)

1. Zaklad Chemii Organicznej Uniwersytetu, Lodz  
(Aryl groups) (Hydrazones) (Glyoxal)  
(Formaldehyde) (Amines)

SUSZKO, J.; HAHN, W.

On the construction of benzocycloheptene. Bul Ac Pol chim 7 no.5:  
279-283 '59. (EEAI 9:9)

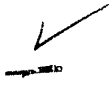
1. Zaklad Chemii Organicznej, Uniwersytet im. A.Mickiewicza,  
Poznan.  
(Benzocycloheptene)

P/012/59/004/03/13/020

Synthesis of Aminoalcohols IV. Reaction Products of Omega-Monoarylhydrazones of Glyoxal Derivatives With Formaldehyde and Amines

ASSOCIATION: Katedra Chemii Organicznej, Uniwersytetu Łódzkiego (Łódz University, Department of Organic Chemistry)

PRESENTED: January 16, 1959



Card 2/2

P/012/59/004/03/13/020


AUTHOR: Hahn, W.E.

TITLE: Synthesis of Aminoalcohols IV. Reaction Products of Omega-Mono-  
arylhya zones of Glyoxal Derivatives With Formaldehyde and  
Amines ¶

PERIODICAL: Societas Scientiarum Lodziensis Acta Chimica, 1959, Vol 4,  
pp 117 - 130

TEXT: The subject of the investigations was to carry out the addition reactions between the formaldehyde and primary amines and between the secondary mono- and diamines and the series of omega-monophenylhydrazone derivatives of phenyl- and methylglyoxal. Similar investigations were carried out by other scientists as well, but only with secondary monoamines. As the result of experimental series described in detail in this article, several new compounds were obtained; they were derivatives of 2-aryl-4-alkyl-6-acyl-2, 3, 4, 5-tetrahydro-1, 2, 4-triazine. These compounds are formed with a good output and they crystallize easily. They were not described yet in chemical-scientific literature. There are 2 tables and 12 references: 5 German, 3 English and 4 Polish.

Card 1/2




P/012/59/004/03/12/020

Synthesis of Aminoalcohols III. Investigations of the Influence of Substituents in Phenylhydrazone Ring Upon Addition Reaction of Formaldehyde With Omega-Monoarylhyazones of Phenylglyoxal

Italian.

ASSOCIATION: Katedra Chemii Organicznej Uniwersytetu Łódzkiego (Lodz University, Department of Organic Chemistry)

PRESENTED: January 16, 1959



Card 2/2

P/012/59/004/03/12/020

AUTHOR: Hahn, W.E.

TITLE: Synthesis of Aminoalcohols III. Investigations of the Influence of Substituents in Phenylhydrazone Ring Upon Addition Reaction of Formaldehyde With Omega-Monoarylhyazones of Phenylglyoxal

PERIODICAL: Societas Scientiarum Lodziensis Acta Chimica, 1959, Vol 4, pp 101 - 115

TEXT: In connection with investigations carried out by the author, concerning the hydroxymethylation reaction of omega-monoarylhyazones of glyoxal derivatives (Refs. 1, 2, 3), the author obtained several compounds of omega-monoarylhyazones of phenylglyoxal. These compounds were not yet described in chemical-scientific literature available in Poland. To these compounds formaldehyde was added in the presence of an alkaline catalyst and two new types of compounds were obtained: D-derivatives of alpha-arylaazo-beta-hydroxy-propiophenone and B-derivatives of 1.5-diphenyl-2, 4-bis-(arylaazo)-pentadione 1, 5. Further, the author lists main properties of these compounds and describes in details the course of his experiments. There are 2 tables and 13 references: 3 Polish, 6 German, 3 English and 1

Card 1/2

HAHN, W.F.; ZIELINSKI, T.

Synthesis of amino alcohols. Pt. IV. Anticancer activity of 10.

1. Department of Organic Chemistry of the Tech University.  
Presented Nov. 1964.

P/012/59/004/03/10/020

AUTHORS: Russocki, M.; Chrzęszczewska, A.; Sławiński, T.; Hahn, W E.

TITLE: Synthesis of 1, 6, 8, 2, 4, 6-Hexahydroxyphenylfluorone

PERIODICAL: Societas Scientiarum Lodziensis Acta Chimica, 1959, Vol 4  
pp 90 - 93

TEXT: The scope of the investigation described in this article was the synthesis of a hitherto not known symmetrical hexahydroxyphenylfluorone in which all orto positions, as regards the central carbon, are filled with hydroxy groups. This goal was achieved by condensation of phloroglucine aldehyde with phloroglucine in a classical way. The condensation was carried out by heating these compounds in 50% alcohol, acidulated with  $H_2SO_4$  in the atmosphere of air or carbon dioxide. The output was between 48-66%. The same product, but with lower output and purity, was obtained by condensation in concentrated sulphuric acid. There are 4 references, 2 German and 2 English.

ASSOCIATION: Katedra Chemii Organicznej Uniwersytetu Łódzkiego (Lodz University, Department of Organic Chemistry)

PRESENTED: March 14, 1959

Card 1/1

1. Synthesis of amino alcohols. I. Hydroxymethylation of  
 $\omega$ -phenylhydrazones of methyl- and phenylglyoxal. Witold  
 E. Flahn (Univ. Łódź, Poland). *Roczniki Chem.* 33, 65-76 (1959)  
 (1965) (German summary).--The reactions of  $\omega$ -phenylhydrazones of methyl- and phenylglyoxal with HCHO  
 were investigated as the 1st stage of a new synthesis of serinol  
 derivs. It was found that only the *N*-unsubstituted derivs.  
 are able to react. The addn. products are:  $\alpha$ -phenylazo-  
 $\beta$ -hydroxybutanone, m. 116-18°, and -propiophenone (I),  
 m. 128-9°; 3,5-bis(phenylazo)-2,3-heptanedione, m. 204-6°,  
 and 1,5-diphenyl-2,4-bis(phenylazo)-1,5-pentanedione, m.  
 245-6°. Condensation of I with the phenylhydrazone of  
 methylglyoxal gave 1-phenyl-2,4-bis(phenylazo)-1,5-hexane-  
 dione, m. 239-40°. A. Kręglewski.

3  
 MAY  
 4E 20 18  
 4E 31

COUNTRY : Poland  
 CATEGORY :

U-2

ABST. JOUR. : RZKhim., No. 19, 1959, No. (7880

AUTHOR :  
 INST. :  
 TITLE :

ORIG. PUB. :

ABSTRACT : has a thermodynamically more stable chair-conformation of the cycloheptane ring, the COOH-groups are in cis-I in an equatorial conformation which is transformed into an axial in V, while in trans-I they are in equatorial-axial conformation. Melting points in °C, and  $[\alpha]_D$  values (temperature in °C), of the salts of cis-I and trans-I with nicotinic acid, are reported as follows: quinine salt, 104-106 and 103-110, - 119.3(14) and - 100.8(15); cinchonidine salt, 127-141 and 135-140, - 77.7(16) and - 75.3(16); brucine salt, 95-104 (all from acetone) and 85.3(16). Spatial models are shown for cis- and trans-I, and for V.  
 R. Topshteyn.

CARD: 5/5

G-8

COUNTRY : Poland  
 CATEGORY :

G-2

ABSTRACT : AZHim., No. 19, 1959, No. 67820

ORIG. :  
 TITLE :

ORIG. PUB. :

ABSTRACT : The isomerization of which gives again the  $\Delta^1$ -isomerization of cis-1 to trans-1 is observed only at temperatures above 100°. Optical properties of the investigated acids prove the stereochemical equivalence of positions 4 and 6 in 1,4-benzo- $\Delta^1$ -cyclohexene (VI) and, consequently, the presence of a plane of symmetry which extends through C(5), the middle of the double bond shared by the bicyclic system, and the middle of the benzene ring. Similarity in behavior of the cis-1, trans-1, and the cyclohexene-carboxy-1,3 acids, taking into account the higher stability of cis-1 and the properties of 4,6-substituted derivatives of VI, give reason for assuming that 1

CARD: 4/6

COUNTRY : Poland  
CATIONOR/ :

6-2

ABST. JOUR. : RZKhim., No. 19, 1959, No. 67870

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : Absolute  $\text{CH}_3\text{OH}$  + concentrated  $\text{H}_2\text{SO}_4$  (5 hours,  $100^\circ$ ), yield 89%, MP  $45-56^\circ$  (from  $\text{CH}_3\text{OH}$ ), and also over the di-acid-chloride of cis-I, with subsequent treatment with absolute  $\text{CH}_3\text{OH}$ . From the di-acid-chloride of cis-I was obtained the diimide, MP  $357-358^\circ$  (from alcohol). Cis-I is optically inactive and, probably, is a meso-compound. The less stable trans-I was separated, over the quinine salt, into (+)-trans-I, MP  $208-209^\circ$ ,  $[\alpha]_D^{25} + 49.1^\circ$ , and the (-)-trans-I, MP  $208-209^\circ$ ,  $[\alpha]_D^{25} - 46.7^\circ$ ; quinine salt of (-)-trans-I, MP  $111-113^\circ$  (from 50% alcohol),  $[\alpha]_D^{25} - 138.3^\circ$  (all  $[\alpha]_D$  were determined in absolute alcohol with c 1).  $(\text{CH}_3\text{CO})_2\text{O}$  and trans-I yield the cis-acid-imide.

CARD: 3/5

67

COUNTRY : Poland  
 CATEGORY :

ABS. JOUR. : AZKhim., No. 19, 1959, No. 67880

ABST. :  
 :  
 TITLE :

ORIG. PUB. :

ABSTRACT : by saponification, to the corresponding acid, MP 340-341° (all from alcohol), which was reduced over solution Ni (4 hours, 80-90°; 1 hour, 100°; treated with concentrated HCl) to I, yield 88-95%. The I thus obtained is a mixture of cis- and trans-isomers. Fractional crystallization from alcohol yielded optically inactive cis-I, MP 272-274°; from the mother liquor was isolated trans-I, MP 197-198° (from 70% alcohol, then from water). By action of  $(CH_3CO)_2O$  or  $CH_3COCl$  on I (4 hours, 100°) was obtained the anhydride of cis-I (V), MP 168-169° (from absolute benzene), the hydrolysis of which yields cis-I. The dimethyl ester of cis-I was obtained by treatment of V with

CARD: 2/5

SUBJECT : Polymers  
 CATEGORY : Organic Chemistry - Organic Synthesis  
 ACT. NO. : RZChem., No. 19, 1959, No. 17800  
 AUTHOR : Suzuki, S.; Hata, K.  
 ORG. : Univ. of Tokyo  
 TITLE : Investigation of the structure of some  
 cyclotrienes.

C.A.B. REF. : Recm. chem., 1959, 32, No 5, 1473-1477

Abstract : 1,2-Benzo- $\Delta^1$ -cycloheptene-4,6-dicarboxylic acid (I) was synthesized as follows. The diethyl ester of 1,2-benzo- $\Delta^1$ -cycloheptene-3,7-dione-4,6-dicarboxylic acid (II), prepared according to Dickson, but using  $\text{Et}_2\text{O}$  as solvent,  $\text{CaH}_2$ , (yield of II, 30-35%,  $\text{M} 275-280$ ) was subjected to gradual addition of  $\text{NaOH}$ , within 18 hours at  $60^\circ\text{C}$ . The ester (II) in 500 ml alcohol + 40 ml glacial  $\text{CH}_3\text{COOH}$  + 10 g  $\text{NaOH}$ , to the corresponding 3,7-diol (III), yield 15-20% (crude),  $\text{M} 161-162$ . Oxidation of III by action of  $\text{KMnO}_4$  in dry  $\text{C}_6\text{H}_6$  yielded the diethyl ester of 1,2-benzo- $\Delta^1$ -cycloheptatriene-4,6-dicarboxylic acid (IV),  $\text{M} 285-286$ ,  $\text{M} 285-286$ . IV was converted to I by  $\text{H}^+$ .

COUNTRY : Poland  
CATEGORY :

H-25

ABS. JOUR. : AZKhim., No. 1959, No. 72606

AUTHOR : Hahn, W. E.  
INST. : Lodz Scientific Society  
TITLE : Foam-Forming Properties of the Salts of Aryl-Succinic Acids.

ORIG. PUB. : Soc. scient. lodz. acta chim., 1958, 3, 9-20

ABSTRACT : The possibility was investigated of utilizing as detergents the products of the reaction of fluorene, acenaphthene, and tetrahydronaphthalene, on the one hand, and maleic anhydride, on the other, in the presence of benzoyl peroxide as a catalyst. Foam forming properties and surface tension of solutions of the salts of the thus synthesized aryl succinic acids were compared, at different pH values, with the corresponding properties of solutions of liquid soap and Merzolyat D. results of comparison showed the possibility of utilizing aryl succinic acids as detergents in textile and leather industry, in impregnation of wood, in flotation processes, etc. -- G. Bonvech.

CARD: 1/1

HAHN WIE

The importance of electrophilic halogen in organic chemistry. Willem H. Hahn (Univ. of Gdansk, Poland). Abstracts of papers presented at the following topics are reviewed. From: J. Org. Chem. 41, 1, 1976, 1-10. Halogen (mol.) compounds with attached to G and to N; halogenates with hypohalogen acids. 128 references.

Adam J. Jozwiak

1976

HABRY, WITOLD, E.

✓ Reaction between formaldehyde and the 1-monophenyl-  
 hydrazones of 2-derivatives of glyoxal. Witold E. Habry  
 (Univ. Poznań, Poland). *Roczniki Chem.* 29, 501-4  
 (1955) (German summary).—Attempts to find different  
 starting materials for synthesizing analogs of chloromycetin,  
 beginning with esters of  $\beta$ -oxo acids, were made. The ac-  
 tion of  $\text{CH}_2\text{O}$  on the 1-monophenylhydrazones of 2-derivs.  
 of glyoxal,  $\text{RCOCH:NNHAr}$  (I), gave 2 products,  $\text{RCOC}$   
 $(\text{CH}_2\text{OH}): \text{NNHAr}$  (II) and  $\text{CH}_2[\text{C}(\text{NNHAr})\text{COR}]$ , (III),  
 in the presence of a basic catalyst. When R was Me and Ar  
 was Ph, the yields and m.ps. were 90% I, m. 149-50°,  
 65% II, m. 116-18°, and 10% III m. 205-6°; when R and  
 Ar were Ph, 88% I m. 113-16°, 77% II, m. 126-8°, and  
 11% III, m. 245-6°; when R was 4-pyridyl and Ar was Ph,  
 90% I, m. 173-5°, and 80% II, m. 204-5° P. D.

HAHN, W.

Diene synthesis of heterocyclic rings. p. 616.

WIADOMOSCI CHEMICZNE. (Polskie Towarzystwo Chemiczne)  
Wrocław, Poland.  
Vol. 9, no. 12, Dec. 1955.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

MANN, Witold E.  
HAHN, Witold E.

POL.

The synthesis and reactions of 2-(4-pyridyl)thiazole deriva-  
tives. Jan Daria, Witold E. Hahn, and Marian Janowski,  
Roczniki Chem. 28, 429-434 (1954) (French summary).—The  
following 2-(4-pyridyl)thiazoles are reported as synthesized  
(no experimental details) (4-substituent given): Me, m.  
69-71° (HCl salt, m. 202-8°);  $p$ -BrC<sub>6</sub>H<sub>4</sub>, m. 165-7° (HBr  
salt, m. 239-91°);  $p$ -ClC<sub>6</sub>H<sub>4</sub>, HBr salt, m. 336-4°;  $p$ -  
PhC<sub>6</sub>H<sub>4</sub>, m. 175.6-0.5° (HCl salt, m. 208-8°). C. P.

2

Jan  
9/2

HAHN, Witold E.; KOTKOWSKA-MADEJA, Zofia

Hydroxycarbonyl derivatives and analogs of benzocycloheptene. Pt.1.  
Rocz chemii 37 no.11:1447-1456 '63.

1. Department of Organic Chemistry, University, Lodz.

PRAVDIC, N.; HAHN, V.

Contributions to the knowledge of the amides of thiocinnamic acid. Thioamide. Note II. Croat chem acta 34 no.2:85-88 '62.

1. Odjel biokemije, Institut "Ruder Boskovic", Zagreb, i  
Zavod za organsku kemiju, Tehnoloski fakultet, Zagreb.

KUKOLJA, S.; HAHN, V.

Studies on 4-pyrones and 4-pyridones. II. The preparation and rearrangement of 3-allyloxy-4-pyrone. Croat chem acta 33 no.4: 229-233 '61.

1. Laboratory of Organic Chemistry, Faculty of Technology, University of Zagreb, Zagreb, Croatia, Yugoslavia. 2. Clan Redakcionog odbora, "Croatica chemica acta" (for Kukolja).

HAHN, V. (Zagreb); KUKOLJA, S. (Zagreb)

Studies on 4-pyrones and 4-pyridones. I. The preparation of 1-aryl-3-hydroxy-4-pyridones and related compounds. Croat chem acta 33 no.3:137-144 '61.

1. Laboratory of Organic Chemistry, Faculty of Technology, University of Zagreb, Zagreb, Croatia, Yugoslavia.
2. Member of the Editorial Board, "Croatica chemica acta, Arhiv za kemiju" (for Kukolja).

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

NaOH, heated 30 min. at about 100°, cooled, and  
II is produced, yield 94%, melt. p. 41.5 to 42°  
(from 80%-ual alcohol).

Card : 7/7

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

$n_D^{25} = 1.5960$ ,  $d_4^{25} = 1.1025$ ); IIIm, 10, -, 58 to 59, 20, 13.4, 75, A, 100, -, 55 to 56 (from petroleum ether); IIIn, 3, -, 127 to 128, 10, 3.3, 40, -, 100, -, 70.5 to 71 (from 80%-ual alcohol); IIIP, 4, -, 128 to 129, 15, 4.1, 45, -, 79, -, 85 to 86 (from 90%-ual alcohol); IIIP, 6, -, 109 to 110, 12, 2.5, 60, -, 96, -, 76 to 77 (from alcohol); IIIq, 5, -, 154 to 156, 10, 2.2, 90, A, 57, -, 138 to 139 (from alcohol). 1 g of Ie is dissolved in 10 ml of 10%-ual KOH, 0.7 g of IV is added, crystallized, and Ir is obtained, yield 44%, melt. p. 129 to 129.5° (from alcohol). 3.5 g of V is added to a cooled solution of 2.03 g of Ie in 12 ml of 10%-ual

Card : 6/7

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

benzene + petroleum ester), IIIf, 2, 52, 198 to 200/9, 66 to 67 (from benzene + petroleum ether), 5, 1, 11, 40, A, 88, -, 85 to 85.5 (from benzene + petroleum ether); IIIg; 5, -, 86 to 87, 5, 22, 40, A, 67, -, 46.5 to 47 (from dilute  $\text{CH}_3\text{OH}$ ); IIIh, 10, -, 108 to 109, 20, 8.8, 45, A, 85, -, 88 to 89 (from benzene + petroleum ether); IIIi, 1, -, 150 to 152, 7.1, 120, A, 84, -, 129.5 to 130 (from dilute alcohol); IIIj, 2.17, -, 104 to 105, 5, 0.9, 40, A, 91, -, 129 to 130 (from  $\text{CH}_3\text{OH}$ ); IIIk, 10, -, 129 to 130, 20, 7.2, 90, A, 94, -, 80 to 81 (from benzene + petroleum ether); IIIl, 12, 134 to 136/18, -, 40, 18, 84, 158 to 163/15, 143 to 144/5, - (liquid,

Card : 5/7

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhyr-Khimiya, No 22, 1958, 74028.

initial III-s, their amounts in g, boil. p. in °C/mm, melt. p. in °C, amounts of C·H·N in ml and of P<sub>2</sub>S<sub>5</sub> in g, reaction duration in min., purification method, yield of I in %, its boiling point in °C/mm and its melting point in °C are enumerated: IIIa, 3, -, 141 to 142, 15, 5.7, 40, B, 84, 160 to 162/15, 130 to 131 (from benzene + alcohol); IIIB, 4, -, 62. to 64, 8, 7.1, 40, -, 153 to 157/18, 70 to 71 (from benzene + petroleum ether); IIIC, 17, 136 to 138/15, 34 to 34, 45, 13.6, 45, B, 84, 155 to 160/16, 148 to 150/11, - (liquid, n<sub>D</sub><sup>20</sup> = 1.6236, d<sub>4</sub><sup>20</sup> = 1.1629); IIID, 5, 111, -, 15, 2.8, 45, B, 98, -, 49 to 50 (from petroleum ether); IIIE, 10, -, 123 to 124, 20, 7.2, 60, A, 86, -, 107 to 108 (from

Card : 4/7

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

alcohol). 6 g of VI is added to 8.2 g of benzyl-aniline in 30 ml of  $C_6H_5N$ , the mixture is seasoned 12 hours, after which 40 ml of water is added, the mixture is filtered and IIIp is obtained, yield 91%, melt. p. 111 to 112° (from dilute alcohol). IIIa to IIIq are boiled with  $P_2S_5$  in water-free  $C_6H_5N$ , cooled, poured out into a 5 to 10-fold amount of water heated to 50 or 60°, seasoned 12 hours and filtered, and Ia to Iq are obtained. If necessary, Ia to Iq are preliminarily dissolved in 8 to 10%-ual NaOH at heating and filtered, and Ia to Iq are separated with 10%-ual HCl (method A), or the reaction mass is extracted with ether, the extract is washed with dilute HCl and distilled in vacuo (method B). In the following the

Card : 3/7

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

$R' = 4-C_6H_4OC_6H_4$  (Ik);  $R = R' = C_2H_5$  (Il);  $R =$   
 $= R' = H_2C(CH_2)_3CH_3$  (Im);  $R = CH_3$ ,  $R' = C_6H_5$  (In);  
 $R = C_2H_5$ ,  $R' = C_6H_5$  (Io);  $R = C_6H_5CH_2$ ,  $R' =$   
 $C_6H_5$  (Ip);  $R = R' = C_6H_5$  (Iq), and  $R = C_6H_5$ ,  $R' =$   
 $= COC_6H_5$  (Ir) and S-methyl-iso-thioanilide of  
 thiopyromucic acid (II) were synthesized with a  
 view to study their biological properties.  
 Ia to Iq were prepared of corresponding  $OCH=CHCH=$   
 $CCONRR'$ -s (IIIa to IIIq) and P S, and Ir and II were  
 prepared by the action of  $C_6H_5COCl$  (IV) and  $(CH_3)_2SO$   
 (V) on Ie. 22.0 g of  $OCH=CHCH=CCOCl$  (VI) is added  
 to 23.2 g of phenetidine in 200 ml of 5% aq. NaOH  
 in 20 min.; 1 hour later it is filtered and IIIk is  
 obtained, yield 81%, melt. p. 130 to 131° (from dilute

Card : 2/7

447 V  
YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 74038.

Author : V. Hahn, Z. Stojanac, O. Shchedrov, N. Pravdich-Sladovich, S. Tomashich, D. Emer.

Inst :

Title : Amides of Thiopyromucic Acid. Thioamides. Report I.

Orig Pub: Croat. Chem. acta, 1957, 29, No 3-4, 319-327.

Abstract:  $\text{OCH=CHCH=CCSNRR'}$  Ia to Ir, in which  $R = R' = H$  (Ia);  $R = H, R' = CH_3$  (Ib);  $R = H, R' = C_2H_5$  (Ic);  $R = H, R' = C_6H_5$  (Id);  $R = H, R' = C_6H_4$  (Ie);  $R = H, R' = 2-CH_3C_6H_4$  (If);  $R = H, R' = 3-CH_3C_6H_4$  (Ig);  $R = H, R' = 4-CH_3C_6H_4$  (Ih);  $R = H, R' = 2-CH_3C_6H_4$  (Ii);  $R = H, R' = 4-CH_3C_6H_4$  (Ij);  $R = H, R' = 4-CH_3OC_6H_4$  (Ik);  $R = H, R' =$

Card : 1/7

YUGOSLAVIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 21472

at 240 to 260°, distilled with steam and I is extracted with water from the residue, yield 63%, melting point 184 to 185° (from alcohol). 10 mmoles of  $P_2S_5$  is added to 10 mmoles of I in 10 mlit of anhydrous  $C_5H_5N$ , all is poured out into 50 mlit of water and III is separated (at about 0°, 12 hours), yield 84%, melting point 199 to 200° (from benzene). II was prepared of anhydrous V and  $n-C_6H_4NO_2$  similarly to I, yield 50%, melting point 188

to 189° (from alcohol); IV was prepared similarly to III, yield 73%, melting point 174 to 175° (from benzene).

Card 2/2

Hahn, V

YUGOSLAVIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour : Ref Zhur Khimiya, No 7, 1958, 21472

Author : V. Hahn, N. Pravdic-Sladovnik.

Inst :

Title : The Preparation of Some 1-(nitrophenyl)-2-pyridones and  
-thiopyridones.

Orig Pub : Croat. chem. acta, 1957, 29, No 2, 127-129

Abstract : 1-(3'-nitrophenyl)-2-pyridone (I) and 1-(4'-nitrophenyl)-  
-2-pyridone (II) were synthesized and the corresponding  
2-thiopyridones (III and IV) were obtained from them.  
Pyridone-2 is prepared of 0.1 mole of 2-aminopyridine in  
100 mlit of 20% aal  $H_2SO_4$  by the action of 0.106 mole of  
 $NaNO_2$ , yield 75%, and it is transformed into the K deri-  
vative (V) according to Binz and Raeth (Liebigs Ann.  
Chem., 1931, 489, 107); V is a monohydrate, melting  
point 269 to 273°C. 45 mmole of anhydrous V, 180 mmole  
of m- $BrC_6H_4NO_2$  and 0.3 g of Cu powder are heated 4 hours

Card 1/2

4. P. H. N. V.

4. Benzylthiuronium salts of some barbituric acid derivatives. V. Hahn, Z. Krichenky, I. Kuflik-Maskey and K. Jander (Ostrov, Zarem, Yarnava), Czech. Chem. Acta 28, 110-111 (1955) (in English). Mixing equimolar parts of Na salts of barbituric acid derivatives and benzylthiuronium chloride in an aqueous solution gives benzylthiuronium salts of following R<sup>2</sup>: CO<sub>2</sub>NR<sup>2</sup>, CH<sub>3</sub>CH<sub>2</sub>CO<sub>2</sub>NR<sup>2</sup>, R<sup>2</sup>CH<sub>2</sub>CO<sub>2</sub>NR<sup>2</sup>.

X, m.p. and elem. given. Na, H, B, O, 17-18% quant. (monohydrate, m. 108-11°). Et, H, B, O, 17.8-0% 75. Pr, H, B, O, 18.2-3% 88. Ph, H, B, O, 14.0-1% 76. PhCH<sub>2</sub>, H, B, O, decamp. 320°. Et, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. Quant. (monohydrate, m. 108-11°). CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>, CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>, H, B, O, quant. (monohydrate, m. 108-11°). Et, Ph, H, B, O, 13.4-5% quant. MeBrCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>BrCH<sub>2</sub>, H, B, O, 9.6-7% quant. Et, H, B, S, decamp. 320°. 80-90° Et, H, B, S, 18.1-1% quant. (monohydrate, m. 108-11°). Et, MePrCH<sub>2</sub>, H, B, S, 11.1-12% 67. P. Ostrik.

Monthly Index of East European Recensions (EEAR) CC Vol. 7,  
No. 2.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12718

Author : Stern, P., Misirlige, A., Hahn, V.

Inst : ~~Not given~~. Inst PHARMACOL, SARAJEVO.

Title : Chemical Structure and Antileukemic Activity. V.  
Certain N-Acyl-urethans.

Orig Pub : Acta pharmac. jugosl., 1956, 6, No 1, 27-32

Abstract : A study was made of 4 N-acyl-urethans: N-carbethoxy-succinoamide (I), N-carbethoxysuccindiamide (II), N-carbethoxyphthalimide (III), and N-carbethoxysaccharine (IV). I, III and IV were obtained by usual methods slightly modified (Heller, G., Jacobsohn, P., Ber., 1921, 54, 1107; Eckenroth, H., Koerppen, G., Ber., 1897, 30, 1265). II was obtained by the action of an excess of a 25% aqueous solution of ammonia upon I. Toxicity of the

Card 1/2

Card 2/2

Hahn, V.

The bromination of 2-furanilide. V. Hahn, Z. Stojanac, and D. Biner (Univ. Zagreb, Yugoslavia) ~~Ann. Kemi. 27, 155-7 (1955) (in English).~~ A soln. of 15.3 g. Br in 5 ml.  $\text{CHCl}_3$  was added slowly with stirring to a soln. of 6 g. 2-furanilide in 110 ml.  $\text{CHCl}_3$ , the mixt. refluxed 40 min., evapd. *in vacuo*, and the residue dissolved in 22 ml.  $\text{EtOH}$  and filtered hot to give, after cooling, 4.4 g. *p*-bromofuranilide (I) of 5-bromo-2-furoic acid, m. 142-3°; analytical sample, m. 154-5° (from  $\text{EtOH}$ ). A mixt. of 2 g. I and 25 ml. concd.  $\text{HCl}$  was heated 6 hrs. at 150-60° in a sealed tube, the mixt. dild. with 30 ml.  $\text{H}_2\text{O}$ , extd. with  $\text{Et}_2\text{O}$  (no definite product was obtained from  $\text{Et}_2\text{O}$  soln.), the aq. soln. was filtered, excess  $\text{NaOH}$  added, the mixt. extd. with  $\text{Et}_2\text{O}$ , the  $\text{Et}_2\text{O}$  soln. dried, evapd., the residue dissolved in  $\text{H}_2\text{O}$ , filtered hot,  $\text{NaOH}$  soln. added, to yield *p*- $\text{BrC}_6\text{H}_4\text{NH}_2$  (II). 5-Bromo-2-furoyl chloride (6.3 g.) in 15 ml.  $\text{C}_6\text{H}_6$  was dropped into 5.2 g. II in 15 ml.  $\text{C}_6\text{H}_6$ , the mixt. refluxed 30 min., held 12 hrs. at room temp., 15 ml.  $\text{C}_6\text{H}_6$  and 20 ml.  $\text{H}_2\text{O}$  added, the  $\text{C}_6\text{H}_6$  layer sepd., washed with 20 ml.  $\text{H}_2\text{O}$ , dried, and evapd., and the residue crystd. from 30 ml.  $\text{EtOH}$  to give 5.8 g. I, m. 153-4°.

(2)

MA 8/2/55

✓ Synthesis in the dihydroxy ether series. III. Sulphona-  
 tion of 4-jutro- and 2,4-dinitrodiphenyl ether. V. Halm, Z.  
 Kochansky, and V. Tesak-Tenc (Univ. of Vienna, Yugo-  
 slavia), *J. Org. Chem.* 24, 207-208 in *Bardac* 1959-60 (1964),  
 cf. C.A. 49, 6059;  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4-$  (5 g.) and 10 g. conc.  
 $\text{H}_2\text{SO}_4$  was heated 3 hrs. on a water-bath, cooled and 10 g.  
 ice added, 10 g. crystals, m. 65-73° which in 5 ml.  $\text{H}_2\text{O}$   
 was treated with 10 ml. 50% KOH to give  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4-$   
 $\text{OC}_6\text{H}_4\text{SO}_3\text{K}$  (I), colorless prisms. The mother liquor  
 was evaporated to dryness, 2 g.  $\text{PCl}_5$  added, heated 0.5 hr. on a  
 water-bath, 10 ml.  $\text{H}_2\text{O}$  added, extd. with  $\text{H}_2\text{O}$ , the exts.  
 dried and evaporated to yield 0.13 g. residue, m. 115-18° which  
 treated with 5 ml. 25%  $\text{NH}_4\text{OH}$  gave 0.1 g.  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4-$   
 $\text{SO}_3\text{NH}_2$  (II), m. 108-200°.  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4\text{SO}_3\text{H}$  (III) (5.2 g.)  
 and 5.4 ml. conc.  $\text{H}_2\text{SO}_4$  was heated 0.5 hr. on a water-  
 bath and 5 g. ice added to give  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4\text{SO}_3\text{H}$   
 (III), light gray, hygroscopic leaflets melting at 80°, m.  
 98-106° (unsharp). III Ba salt, colorless prisms (from  $\text{H}_2\text{O}$ );  
 III monohydrate, m. 60°, m. 108-110°. K salt, pale-  
 yellow prisms (from  $\text{H}_2\text{O}$ ); 5-benzylthiuronium salt (IV), m.  
 190-1°, colorless prisms (from 50%  $\text{EtOH}$ ).  $-\text{C}_6\text{H}_4\text{N}(\text{O}_2)\text{C}_6\text{H}_4-$   
 $\text{SO}_3\text{K}$  (V) (5.4 g.), 10 ml.  $\text{H}_2\text{O}$  and 0.7 g.  $1,3,5\text{-C}_6\text{H}_3\text{Cl}_3$   
 (VI) was heated for 2 hrs. under reflux, cooled in ice, the  
 crystals filtered off, dissolved in 25 ml.  $\text{H}_2\text{O}$ , let stand over-  
 night in an ice-box, the unreacted VI filtered off and the  
 filtrate evaporated to leave 11.2 g. of III K salt. III Ba salt was  
 prepd. from the K salt with  $\text{BaCl}_2$  and converted to III  
 monohydrate and identified as IV. The X-ray diffraction  
 patterns of III K salt obtained both by sulfonation of II and  
 by condensation of V with VI were identical. H. Gustak

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~~XXXXXXXXXX, V. HAHN~~  
 HAHN, V.

YUGO .

The structure of phthaloylurea. V. Hahn, P. Hammes, and Z. Gerle (Univ. Zagreb, Yugoslavia). *Experientia* 10, 11-12 (1954) (in German). Treatment of phthaloylurea (I) or phthaloylurethane (II) with excess  $\text{NH}_4\text{OH}$  produced phthalamide in both cases; similarly treatment of I or II with  $\text{NH}_4\text{H}_2\text{O}$  produced phthaloylhydrazide. I with xanthidrol in  $\text{AcOH}$  gave exclusively a monoxanthyl deriv., m. 201-2° (from dioxane-EtOH). Thus the structure of I is  $\text{C}_6\text{H}_4(\text{CO})_2\text{NCONH}_2$ . D. S. Parnes.

2  
 AA SH

HARRIS, V.

YUGO:

Syntheses in the diphenyl ether series. II. Prepn. of 8-phenoxyquinoline and of 8-phenoxy-1,2,3,4-tetrahydroquinoline. V. Hrdin, J. Biscan, and O. Bandković-Rakdjaš (Univ. Zagreb, Yugoslavia). *Arhiv Kem.* 25, 283-6 (1963) (English summary); cf. *C.A.* 49, 2349d. --A tech. mixt. of *o*- and *p*-ClC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub> (ratio 70:30) was converted to the corresponding diphenyl ethers [Org. Syntheses, Collective Vol. II, 445 (1943) (*C.A.* 23, 2304<sup>g</sup>)] reduced by Suter's method (*C.A.* 23, 4400) to a mixt. of the corresponding aminodiphenyl ethers, b<sub>p</sub> 180-200°, in 75% yield, which were separated to the individual ethers by Suter's method (*loc. cit.*). Thus from 38 g. of the mixt. were obtained 25 g. (69%) of the pure *o*-aminodiphenyl ether (I), m. 43-4°. A modified Skraup synthesis with 0.05 mole I, 0.2 mole of glycerol, 0.0375 mole As<sub>2</sub>O<sub>3</sub> and 10.12 g. concd. H<sub>2</sub>SO<sub>4</sub> gave 71% crude 8-phenoxyquinoline (II) purified by vacuum distillation, b<sub>p</sub> 218-23°, m. 105.5-6.5°. II.HCl crystallizes from EtOH-Et<sub>2</sub>O as the monohydrate, colorless prisms, m. 102-4°. Remelting 169-70° [anhyd. II.HCl (III)], dehydration *in vacuo* over P<sub>2</sub>O<sub>5</sub> gave III, m. 170-1°; picrate, yellow needles, m. 140.5-1.5° (from EtOH); picrolonate, yellow needles, m. 175-5.5° (decompn.) (from EtOH-dioxane). To 0.033 mole II in 100 ml. hot abs. EtOH was added 0.652 g.-atom Na over one hour, 100 ml. more EtOH was added to dissolve all the Na; H<sub>2</sub>O and HCl were added and the mixt. evapd. to dryness, then extd. with H<sub>2</sub>O and Et<sub>2</sub>O to give 67% the 8-phenoxy-1,2,3,4-tetrahydroquinoline (IV), colorless oil, b<sub>p</sub> 205-10°, m. 79-80°. Upon recryst. it m. 81-2° (from EtOH); HCl salt, colorless plates, m. 155-156° (from EtOH-Et<sub>2</sub>O); picrolonate, yellow prisms, m. 163-3° (decompn.) (from EtOH).

Werner Jacobson

HAHN, V

Vitamin B<sub>12</sub> is the subject of the series I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UU, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

on a H<sub>2</sub>O bath to yield the crude K salt. Thus, 10 g. of KOC<sub>2</sub>H<sub>5</sub>SO<sub>3</sub>K and 50 g. V heated 6 hrs. at 230-245° gave 9 g. crude K salt of II, which in 1 part H<sub>2</sub>O with 2 parts conc. H<sub>2</sub>SO<sub>4</sub> gave free II, m. 80-81°, crystals from Et<sub>2</sub>O-petr. ether, after drying in vacuo, yielded the dihydrate of II, m. 96-97°, colorless plates; anhyd. II from the dihydrate by drying at 120°, syrupy liquid; K salt of II colorless plates or prisms from H<sub>2</sub>O; Ba salt of II from dihydrate with Ba(OH)<sub>2</sub>, colorless prisms from H<sub>2</sub>O; S-benzylthiuronium salt, m. 193-194°, colorless prisms from aq. EtOH; chloride, m. 135-136° from Et<sub>2</sub>O; amide, m. 203-204°, prisms from aq. EtOH. Heating 10 g. m-KOC<sub>2</sub>H<sub>5</sub>SO<sub>3</sub>K with 30 g. V for 6 hrs. at 230-240° yielded 10 g. crude K salt of III and 20 g. regenerated V. Pure K salt of III, colorless prisms, from H<sub>2</sub>O; Ba salt from K salt with BaCl<sub>2</sub>, free III from the Ba salt, not obtained; cryst.; S-benzylthiuronium salt, m. 157-158°, colorless prisms from aq. EtOH; chloride, m. 99-100°, prisms from C<sub>6</sub>H<sub>6</sub>-petr. ether; amide, m. 155-156.5°, colorless prisms from aq. EtOH. From 9 g. p-KOC<sub>2</sub>H<sub>5</sub>SO<sub>3</sub>K and 27 g. of V heated 6 hrs. at 220-240°, 7.6 g. crude K salt of IV and 22 g. V were obtained. The dihydrate of IV was prepd. in the same manner as the dihydrate of I, m. 83-84°, pale yellow plates from Et<sub>2</sub>O-petr. ether; anhyd. IV, syrupy liquid; K salt from dihydrate, slight yellow plates from 6 parts H<sub>2</sub>O; Ba salt from dihydrate, yellowish prisms from 60 parts H<sub>2</sub>O; S-benzylthiuronium salt, m. 105.0-96°, prisms from aq. EtOH; chloride, m. 84-86°, slight yellow crystals from Et<sub>2</sub>O-petr. ether; amide, m. 128-129°, pale yellow prisms from aq. EtOH.

H. Gustaf

HAHN, V.

Yugoslavia (430)

Technology

on 5-alkyl-5-acyl derivatives of barbituric acid.  
p. 87, ARHIV ZA KEMIJU, Vol. 20, no. 1-4, 1948.

East European Accessions List, Library of Congress,  
Vol. 1, no. 14, Dec. 1952.. UNCLASSIFIED.

HAHN, V.

Yugoslavia (430)

Technology

The preparation of some quinoline bases with restorative properties. p. 73, Arhiv Za Kemiju, Vol. 20, no. 1-4, 1948.

East European Accessions List, Library of Congress,  
Vol. 1, no. 14, Dec. 1952. UNCLASSIFIED.

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
HANNLY																										PROCESSES AND PROPERTIES INDEX																									
<p>CK</p>																										<p>17</p>																									
<p>New derivatives of barbituric acid. V. Prelog and V. Hahn. <i>Collection Cassatov, Chem. Communications</i> 8, 219-22 (1956).--In order to obtain a barbituric acid deriv. with a linear diether substituent, <math>\beta</math>-ethoxyethylpropyl-ether-<math>\gamma,\gamma</math>-diethyldicarboxylate was alkylated by sodium ethylate and ethyl bromide to give <i>diethyl ethyl-<math>\beta,\beta'</math>-diethoxyethylmalonate</i> (I) (60%), bp 173-178.5°. Hydrolysis by KOH and acidification gave a sticky malonic acid deriv. from which the <i>Ba salt</i> and the <i>monocarboxylic acid</i> bp 180-1° were prepd. With urea I gave <i>ethyl-<math>\beta,\beta'</math>-diethoxyethylbarbituric acid</i> (II) m. 96.5-97°, and with <i>N-Me urea</i> I gave <i>ethyl-<math>\beta,\beta'</math>-diethoxyethyl-N-methylbarbituric acid</i> (III). Tests with white mice showed that the diether linkage decreased both the toxicity and hypnotic action. II required 1000 mg./kg. to show hypnotic action. Instead of showing hypnotic action III in doses of 140 to 560 mg./kg. greatly increased reflex hyperexcitability, much like strychnine, with recovery within 5 hrs.</p>																																																			
W. F. Bruce																																																			
<p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

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SOURCE CODE: PO/2516/65/000/042/0005/0019

AUTHOR: Hahn, S.

ORG: Department of Radio and Television Equipment (Katedra urzadzen radio-  
technicznych i telewizyjnych)

TITLE: Theory of circuits with variable complex frequency

SOURCE: Warsaw. Politechnika. Zeszyty naukowe, no. 117, 1965. Elektryka,  
no. 42, 5-19

TOPIC TAGS: circuit theory, signal frequency, amplitude modulation, resonance  
system, signal response

ABSTRACT: It is shown that the Carson and Fry theory, used for determining the  
response of linear quadripoles excited by a variable signal frequency, can also be  
used for determining the response signals of both variable amplitude and frequency  
because of the introduction of the notion of the instantaneous complex frequency. As  
an example, the response is determined of the resonance system excited by an  
amplitude-modulated signal. Orig. art. has: 4 figures and 33 formulas. [Based on  
author's abstract]

SUB CODE: 20/ SUBM DATE: 02Jan64/ ORIG REF: 001/ OTH REF: 004/

Card 1/1 *pla*

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B11

UJECH, Stefan, doc. dr inż.; CHACHULSKI, Andrzej, mgr inż.; KUNSKI,  
Ryszard, mgr inż.

Transistor frequency standard. Przegląd Elektryczny 36 (1964),  
no. 6:161-165. Jan '64.

1. Institute of Basic Technical Problems, Polish Academy of  
Sciences, Warsaw.

CHACHULSKI, Andrzej; HAHN, Stefan

Analog correlator with a magnetic tape memory. Proceed vibr  
probl 4 no.2:199-207 1963.

1. Department of Vibrations, Institute of Basic Technical Problems,  
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Theory of generators with two ...

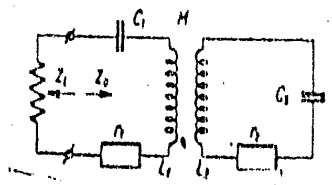
P/019/62/011/001/002/010  
D265/D302

pp. 700-719.

ASSOCIATION: Katedra urządzeń radiotechnicznych PW (Department of  
Radio-Technical Appliances of the Warsaw Polytechnic  
Institute)

SUBMITTED: February 15, 1961

Fig. 1.



Card 3/3

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Theory of generators with two ...

on the value of the negative damping coefficient  $\varepsilon$  defined by

$$\varepsilon = \frac{2}{Q} + \frac{R}{X}, \quad X = \sqrt{\frac{L_1}{C_1}} \quad (30)$$

where  $R$  - negative resistance. It is shown also that there exists a critical value for this coefficient, below which the process of oscillation build-up is the consequence of beating of two modes of oscillations and for the value of the damping coefficient higher than its critical value one mode is building-up and beating appears in the non-linear range only. Results of this analysis are verified experimentally and illustrated by photographs. According to the author the theory of generators with two degrees of freedom due to van der Pol can only be applied to generators, in which the coefficient of damping is smaller than its critical value and hence finds limited application in practice for the generators of high quality factor. There are 18 figures and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publication read as follows: S. Hahn, Proc. of Vibration Problems, no. 1, 1959, pp. 29-47; B. van der Pol, Phil. Mag., v. 43, no. 256, April 1922, Card 2/3

3700.

P/019/62/011/001/002/010  
D265/D302

93160

AUTHOR: Hahn, S.

TITLE: Theory of generators with two degrees of freedom

PERIODICAL: Archiwum elektrotechniki, v. 11, no. 1, 1962, 77-110

TEXT: In this article the author provides the theoretical analysis of the dynamic phenomena occurring during the oscillation build-up period of generators with two degrees of freedom. Parameters of the steady state have been determined by solving the characteristic equation

$$A_4 z^4 + A_3 z^3 + A_2 z^2 + A_1 z + A_0 = 0 \quad (2)$$

by a graphical method. For the non-linear range both the graphical and analytical methods were made use of. The phenomenon of dynamical oscillation hysteresis is dealt with in detail and explained analytically and graphically. It is shown that in a generator with coupled circuits excited by means of negative resistance (Fig. 1) the oscillation build-up processes differ fundamentally depending

Card 1/3

HAHN, Stefan

Dynamical phenomena in generators with two degrees of freedom.  
Proceed vibr probl 3 no.2:171-191 '62.

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Polish Academy of Sciences, Warsaw.